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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/672,458

09/26/2003

Timo Tokkonen

852.0023.U1(US)

9731

29683 7590 10/16/2007
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EXAMINER

LONG, ANDREA NATAE

ART UNIT

PAPER NUMBER

2176

MAIL DATE

DELIVERY MODE

10/16/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/672,458	Applicant(s) TOKKONEN, TIMO	
	Examiner Andrea N. Long	Art Unit 2176	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 September 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 6, 7 and 10-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 6, 7 and 10-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 09/20/2007 has been entered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. **Claims 1-3, 6-7, and 10-12 rejected under 35 U.S.C. 103(a) as being unpatentable over Venolia et al (US Patent 6573844 B1), hereinafter "Venolia" in view of Comerford et al (US Patent 5963671), hereinafter "Comerford".**

As to independent claim 1, Venolia teaches a method comprising:

receiving a separate information unit entered with input elements of a dynamic

I/O arrangement belonging to a user interface of an electronic device (column 5 lines 54-56,

column 5 line 63 through column 6 line 9)

identifying after each input the entered information unit and determining based on probability which information units will likely be input next (column 6 lines 44-45); and, emphasizing by size the input elements corresponding to the information units likely to be entered next in the user interface of the electronic device, wherein the size of the emphasized input elements are determined on a case-specific basis depending on the probability of the information unit associated with the input element being entered next (column 6 lines 44-59, Fig. 4, column 7 lines 15-23). As noted by Applicant on page 9 of Applicant's Response dated 09/20/2007, Venolia provides indication of relative probability of an order of information units likely to be entered next. However Venolia uses arrangement of units instead of varying the size of the units to portray the respective probability. Comerford, which is in the same field of endeavor of predicting a next likely input, also uses an enhancement method to visually depict next likely units. Comerford provides reasonable suggestion to one skilled in the art that the keys that are most likely to be selected next can vary in size dependent upon the order of probability (column 3 lines 64-67 "degree of emphasis", column 13 lines 1-9).

Therefore it would have been obvious to one skilled in the art at the time the invention was made to have included the additional step of varying the sizes of keys likely to be entered next as suggested by Comerford with the enlarging of keys of Venolia to provide a detailed visual depiction of the order of probability of each key likely to be entered next to facilitate quicker and more efficient selection.

As to dependent claim 2, Venolia teaches wherein the input of the information unit is fulfilled by a press of a separate key belonging to the user interface (column 6 lines 4-9).

As to dependent claim 3, Venolia teaches where the dynamic I/O arrangement comprises a touch display or a projection keyboard (column 5 lines 26-27, Figure 2 reference character 404, “soft keyboard”).

As to independent claim 6, Venolia teaches a memory configured to save information (Fig. 1, reference character 22);

a user interface configured to display a plurality of input elements, each of the input elements corresponding to an information unit (Fig. 3 column 5 line 63-column 6 line 9);

an input control configured to receive selections of information units selected using the input elements displayed by the user interface (column 5 lines 54-56, column 5 line 63 through column 6 line 9);

a control unit coupled to the memory, user interface, and input control, the control unit configured to identify after each input an entered information unit; to determine based on probability which information units will likely be entered next; and to cause the user interface to emphasize by size the input elements corresponding to the information units likely to be entered next, wherein the size of the emphasized input elements are determined on a case-specific basis depending on the probability of the information unit associated with the input element being entered next (Fig. 1, Fig. 4, column 6 lines 44-59, column 7 lines 11-15). As noted by Applicant on page 9 of Applicant’s Response dated 09/20/2007, Venolia provides indication of relative probability of an order of information units likely to be entered next. However Venolia uses arrangement of units instead of varying the size of the units to portray the respective probability.

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Comerford, which is in the same field of endeavor of predicting a next likely input, also uses an enhancement method to visually depict next likely units. Comerford provides reasonable suggestion to one skilled in the art that the keys that are most likely to be selected next can vary in size dependent upon the order of probability (column 3 lines 64-67 “degree of emphasis”, column 13 lines 1-9).

Therefore it would have been obvious to one skilled in the art at the time the invention was made to have included the additional step of varying the sizes of keys likely to be entered next as suggested by Comerford with the enlarging of keys of Venolia to provide a detailed visual depiction of the order of probability of each key likely to be entered next to facilitate quicker and more efficient selection.

As to dependent claim 7, Venolia teaches where the input elements are defined by an area on a touch display or a projection keyboard (column 5 lines 26-27, Fig. 2 reference character 404, “soft keyboard”).

As to dependent claim 10, Venolia teaches wherein the electronic device is a cellular terminal or PDA (column 5 line 39-41).

As to independent claim 11, claim 11 incorporates substantially similar subject matter as claimed in claim 1 and is rejected along the same rationale.

As to dependent claim 12, is rejected under the same rationale as claim 2.

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Response to Arguments

4. Applicant's arguments with respect to claims 1, 6, and 11 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

5. The prior art made of record on Form PTO 892 and not relied upon is considered pertinent to applicant's disclosure.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrea N. Long whose telephone number is 571-270-1055. The examiner can normally be reached on Mon - Thurs 6:00 am to 3:00 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doug Hutton can be reached on 571-272-4137. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Andrea Long
October 6, 2007


WILLIAM BASHORE
PRIMARY EXAMINER